RECEIVED CENTRAL FAX CENTER

JAN 2 2 2007

## AMENDMENTS TO THE CLAIMS

1. (Currently amended). A process for operating a blue flame burner comprising: providing a blue flame burner adapted for domestic heating with fuel comprising a Fischer-Tropsch-derived fuel; and,

MORRIS & AMATONG, P.C.

- burning the fuel under conditions effective a Fischer Tropsch derived fuel to produce an amount of energy and flue gasses; and,
- performing one or more procedure selected from the group consisting of heating water with the flue gasses by indirect heat exchange in a boiler and directly heating a space with the flue gasses.
- 2. (Currently amended) The process of claim 1[[-, 1] further comprising operating underwherein the conditions comprise such that a value of lambda is in a range of between about 1 and about 1.6.
- (Currently amended) The process of claim 2[[-,]] wherein the value of lambda is in a range of between about 1.05 and about 1.2.
- (Currently amended) The process of claim 1[[,]] wherein the one or more procedure is further comprising heating water with the flue gasses by means of indirect heat exchange in a boiler.
- (Currently amended) The process of claim 1[[,]] further comprising wherein the one or 5. more procedure is directly heating a space directly with the flue gasses.
- 6. (Currently amended) The process of claim 1[[-]] wherein 90 wt.% or more of the Fischer Tropseh derived Tropsch-derived fuel boils for more than 90 wt % boils at a first temperature in a first range of between about 160 °C and about 400 °C.
- (Currently amended) The process of claim 6[[3]] wherein 90 wt.% or more of the Fischer-Tropsch derived Tropsch-derived fuel boils for more than 90 wt % boils at a second temperature in a second range of between about 160 °C and about 370 °C.
- (Currently amended) The process of claim 1[[5]] wherein the Fischer-Tropsch 8. derived Tropsch-derived fuel comprises a Fischer-Tropsch product that which contains more than about 80 wt % or more of iso-paraffins and normal paraffins, less than about 1 wt % or less of aromatics, less than about 5 ppm or less of sulfur, and less than about 1 ppm or less of nitrogen,

ROA mailed 09/25/2006 for 10/521,882

and wherein the density of the Fischer-Tropsch product has a density of the between about 0.65 g/cm<sup>3</sup> and about 0.8 g/cm<sup>3</sup> at about 15 °C.

- 9. (Currently amended) The process of claim 1[[-]] wherein the Fischer-Tropseh derived Tropsch-derived fuel comprises more than about 80 wt % or more of a Fischer-Tropsch product.
- 10. (Currently amended) The process of claim 9[[--]] wherein the Fischer-Tropsch derived Tropsch-derived fuel comprises one or more of a mineral oil fraction and and/or a non-mineral oil fraction.
- 11. (Currently amended) The process of claim 1[[-]] wherein the Fischer-Tropsch derived Tropsch-derived fuel comprises one or more additives.
- 12. (Currently amended) The process of claim 11[[5]] wherein the Fischer-Tropseh derived Tropsch-derived fuel further comprises an odor marker.
- 13. (Currently amended) The process of claim 11[[5]] wherein the Fischer-Tropseh derived Tropsch-derived fuel further comprises a color marker.
- 14. (New) A method for operating a blue flame burner, the method comprising:
  supplying a liquid Fischer-Tropsch-derived fuel to the blue flame burner;
  supplying an oxygen-containing gas to the blue flame burner;
  mixing the liquid Fischer-Tropsch-derived fuel and the oxygen-containing gas to form a
  combustible mixture;

feeding the combustible mixture to a pre-combustion space within the blue flame burner; burning the combustible mixture utilizing the blue flame burner to produce flue gasses; and

recycling at least a portion of the flue gasses externally of the blue flame burner to a nozzle of the blue flame burner recirculating the portion of the flue gasses.

- 15. (New) The method of claim 14 further comprising performing one or more procedure selected from the group consisting of heating water with the flue gasses by indirect heat exchange in a boiler and directly heating a space with the flue gasses.
- 16. (New) A method for operating a blue flame burner, the method comprising: supplying a liquid Fischer-Tropsch-derived fuel to the blue flame burner;

ROA mailed 09/25/2006 for 10/521,882

supplying an oxygen-containing gas to the blue flame burner;

mixing the liquid Fischer-Tropsch-derived fuel and the oxygen-containing gas to form a combustible mixture;

feeding the combustible mixture to a pre-combustion space within the blue flame burner; burning the combustible mixture utilizing the blue flame burner to produce flue gasses; and

- recycling at least a portion of the flue gasses to a nozzle of the blue flame burner by swirling the combustible mixture within the blue flame burner recirculating the portion of the flue gasses.
- 17. (New) The method of claim 16 further comprising performing one or more procedure selected from the group consisting of heating water with the flue gasses by indirect heat exchange in a boiler and directly heating a space with the flue gasses.
- 18. (New) A method for operating a blue flame burner, the method comprising: supplying liquid Fischer-Tropsch-derived fuel to the blue flame burner; supplying an oxygen-containing gas to the blue flame burner; mixing the liquid Fischer-Tropsch-derived fuel and the oxygen-containing gas to form a combustible mixture:

burning the combustible mixture utilizing the blue flame burner; and operating under conditions wherein lambda comprises a ratio of a total amount of the oxygen-containing gas available for combustion to an amount of the oxygen-containing gas required to burn substantially all of the Fischer-Tropsch-derived fuel, lambda having a value of about 1.6 or less.

- (New) The method of claim 18 further comprising: 19. feeding the combustible mixture to a pre-combustion space within the blue flame burner; recycling at least a portion of the flue gasses to a nozzle of the blue flame burner; and operating under conditions wherein lambda has a value of 1 or more.
- 20. (New) The method of claim 18 further comprising performing one or more procedure selected from the group consisting of heating water with the flue gasses by indirect heat exchange in a boiler and directly heating a space with the flue gasses.

**ROA** mailed 09/25/2006 for 10/521,882

- 21. (New) The method of claim 1 wherein the flue gasses comprise a reduced quantity of NO<sub>x</sub> compared to the quantity of NO<sub>x</sub> produced burning a non-Fischer-Tropsch-derived fuel under the same conditions.
- 22. (New) The method of claim 1 wherein the flue gasses comprise a reduced quantity of carbon monoxide compared to the quantity of carbon monoxide produced burning a non-Fischer-Tropsch-derived fuel under the same conditions.